# PASSENGER TRAIN EMERGENCY PREPAREDNESS PLAN

# SOUND TRANSIT & BNSF RAILWAY COMPANY

Prepared in accordance with the requirements established by:

FRA 49 CFR 238 and 239

Prepared by:

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And

The BNSF Railway Company 2600 Lou Menk Drive Ft. Worth, Texas 76131

Revised

November 23, 2015

# SOUND TRANSIT & The BNSF Railway Company

# Passenger Train Emergency Preparedness Plan 49 CFR- Part 239

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# PASSENGER TRAIN EMERGENCY RESPONSE PLAN

# SOUND TRANSIT & THE BNSF RAILWAY COMPANY

# 1.0 GENERAL

#### 1.1 Introduction

The Federal Railroad Administration (FRA) published the Passenger Train Emergency Preparedness Final Rule in the Code of Federal Regulations (CFR) on May 4, 1998. This Rule is located at Title 49 (Department of Transportation), Part 239. Additional stipulations are contained in Title 49 CFR Part 238, Passenger Train Emergency Systems; Emergency Communication, Emergency Egress, and Rescue Access Final Rule. These Rules are not intended to prevent the accident; rather, they were promulgated to mitigate the loss of life and injury. The regulations require the compliance of each affected railroad. Therefore, it has been developed as a collaborative effort between Sound Transit and The BNSF Railway Company (BNSF).

# 1.2 Policy

It is always Sound Transit and the BNSF's primary concern, during all phases, of operations to ensure that maximum safety is accorded our employees, and the public. This is especially true during any type of emergency where we are also concerned with ensuring the safety of emergency responders that may be involved. In this regard, it is the responsibility of every Sound Transit and BNSF employee to ensure that passengers and others who may have been involved in the emergency receive medical assistance, care, and immediate cooperation in safely completing travel to their intended destinations.

Consistent with this policy, we recognize that federal, state, and/or local emergency responders, may arrive at the scene first. The function of this joint Sound Transit and BNSF Emergency Response Plan is to provide comprehensive assistance as necessary under the direction of the senior railroad officer present and local emergency responders.

# 1.3 Purpose

This Plan, along with attachments and appendices, is the controlling document to be used during any commuter train emergency. While the overall objective is to ensure compliance with 49 CFR 238 and 239 as required, this Plan may establish additional or more stringent provisions. The primary objectives of this plan can be summarized as follows:

- 1. Preservation of life.
- 2. Injury reduction and control.
- 3. Expeditious restoration of service.
- 4. Asset protection.
- 5. Assist in any subsequent accident investigation process conducted by the National Transportation Safety Board (NTSB), the Federal Railroad Administration (FRA), and/or other federal or state agencies.

# 1.4 Scope

This Plan applies to all commuter rail service and systems affected by it through planning, design, construction, procurement, testing, operation, and maintenance. This Passenger Train Emergency Preparedness Plan is to be the controlling document to be used during any Sounder passenger train emergency situation that may occur during the course of normal operating conditions on Sound Transit right of way (Lakeview Subdivision) as well as BNSF right-of-way.

# 1.5 System Overview

All Sounder trains are operated by BNSF crews and dispatched by BNSF dispatchers. Each train crew consists of one engineer and one conductor. Regular service is operated Monday to Friday at approximately 30" headways with special event service on weekends. Refer to Appendix 1 for more detail.

**Everett to Seattle**: Sound Transit (Sounder) currently operates four (4) roundtrips a day in each direction between Everett and Seattle, WA. Route characteristics are as follows:

- 4 stations (including destination King Street Station, Seattle)
- 34.2 miles, all on BNSF Scenic Subdivision
- 60 mph max speed

**Tacoma to Seattle**: Sound Transit (Sounder) currently operates ten (10) round trips, and will ramp up to thirteen (13) round trips between Tacoma and Seattle, WA by September, 2017. Route characteristics are as follows:

- 7 stations (including destination King Street Station, Seattle)
- 39.4 miles (38.2 mi on Seattle Sub and 1.2 miles on Lakewood Sub)
- 79 mph max speed

**Tacoma to Lakewood**: Sound Transit (Sounder) has extended six (6) of the ten (10) roundtrips operating between Tacoma and Seattle referenced above to Lakewood, 8.2 miles farther south, beginning Oct 8, 2012. This will ramp up to seven (7) trains a day in each direction by September, 2016. Route characteristics are as follows:

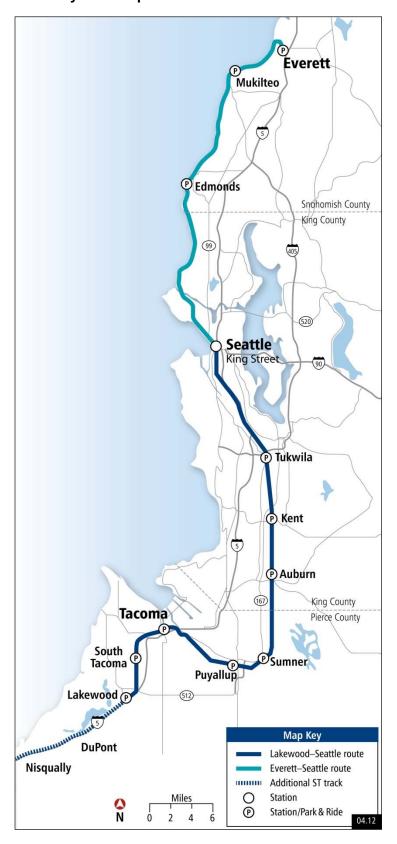
- 2 stations
- 8.2 miles, all on Sound Transit Lakewood Sub
- 60 mph max speed

**Platforms:** All platforms on the system are designed for low level passenger boarding. Platforms on the system are equipped with Mini-High platforms for use by passengers needing assistance.

Rolling Stock Equipment: The Sounder commuter rail fleet consists of 14 locomotives and 58 passenger cars. Eleven (11) locomotives are the F59PHI model built by EMD with 3,000 hp engines. Three (3) locomotives are the MP40PH-3C model built by MotivePower, Inc. with 4,000 HP engines. All cars are the Bombardier Bi-level model with 18 cab cars (having the ability to seat an engineer in control for a train's "push" mode) and 40 coaches. Nine more cab cars of a new Crash Energy Management model are on order from Bombardier and due in late 2016. All cars have a floor height of 21" and are accessed by persons with disabilities through a "mini-high" platform offering level boarding at designated cars.

See **Figure 1** that follows for a map of the Sounder service area in the region.

Figure 1 — Sounder System Map



# 2.0 COMMUNICATION

#### 2.1 Initial and On-Board Communication

In the event of a passenger train emergency situation on the railroad, it is essential that the initial assessment of the passenger situation, as well as the initial notification to the appropriate BNSF Control facility, occur as soon as possible following the emergency event. The Train Engineer will establish and maintain communications with the BNSF Control Center. The following actions must be taken by the appropriate on-board Sound Transit crewmember(s), as indicated:

#### 2.2 Train Conductor

Crew members (Conductor and/or Engineer) will also make immediate notification of emergencies to BNSF Dispatcher and Supervisor (Manager Commuter Operations).

The Train Conductor will determine if any passenger may have the need for immediate medical service. If the answer is yes, the Conductor must notify the engineer who will notify dispatcher, provide first aid and/or request that if a physician or medically trained person is available they should immediately report to the area where medical assistance is needed. Conductors must also keep passengers and crewmembers regularly informed of the nature of the emergency and the status of corrective countermeasures, rescue efforts, and emergency response.

Knowing that conductors will not always have knowledge of which passengers have disabilities, unless expressly informed, the conductors will take mental note of the location and number of passengers requiring additional assistance (e.g. those who are visibly disabled, in a wheelchair, etc.) in order to be able to respond and direct responders to the special needs in the event of an emergency requiring a train evacuation.

Information provided to the passengers must be kept brief and concise. While excessive detail is unnecessary for passengers, crewmembers require as much detail as possible to do their jobs but they must be briefed away from the passengers if possible.

The on-board Public Address (PA) system should be used to make general announcements to passengers. In some instances, such as with a PA failure, car-to-car verbal briefings may be necessary to ensure adequate dissemination of information. Depending on nature of emergency, the primary form of evacuation may be through use of end doors between cars (car to car evacuation). Other evacuations may be though side doors and/or emergency windows.

It is important to brief ALL passengers, including those in cars not damaged. They must be kept informed to reduce the potential for panic and to determine their availability in case the crew requires additional assistance.

The Train Conductor will initially act as Incident Commander until relieved by Fire, Police, railway official or other designated Incident Commander. Upon arrival at the incident site, the conductor will inform arriving emergency responders of the hazards present, the location of the injured, severity, and locations of passengers requiring additional assistance (e.g., persons in wheelchairs, passenger traveling with assistance or assist animals, the very young and the infirm, as well as any other special needs passengers). If conditions change before emergency responders arrive, or if there are passengers who need special accommodations, crewmembers will advise the dispatcher of those changes.

<u>Other crewmembers:</u> In the event the Train Conductor is incapacitated or otherwise unavailable to perform the required duties specified above, at least one on-board crewmember (Engineer) must be qualified under the provisions of this Plan to fulfill the responsibilities of the Train Conductor.

#### 2.3 Other Notifications

Notification by BNSF: The appropriate BNSF Train Dispatcher in Ft. Worth, TX will receive initial emergency communications from the on-board crew members by radio, telephone, or by whatever means available. In the event of a passenger train emergency, the Train Dispatcher will make notification to the Resource Operations Call Center (ROCC), Chief Dispatcher, and Service Interruption Desk (SID) as soon as possible, including any known details regarding passengers with disabilities. Once notified, the ROCC will make notification to the appropriate emergency response agency (fire and/or police departments), and convey any known details regarding passengers with disabilities. The Chief Dispatcher will make notification to all appropriate BNSF operating personnel, including Manager Commuter Operations. BNSF Manager of Commuter Operations will make notification to Sound Transit Duty Officer. Service Interruption Desk will provide internal and external post-accident notifications.

When applicable, the Dispatcher and/or Control Center must also notify, as soon as practical, any adjacent rail modes of transportation with information on the nature and degree of the emergency situation and what actions may be required on their part to ensure that their properties do not become involved.

ROCC (Senior Manager) maintains current telephone numbers to be used when making notifications for both internal communications and first responders. The list is updated as needed.

Notification by National Communications Center (NCC): The NCC (Amtrak Police Desk) may assist the BNSF NOC in notifying appropriate emergency response organizations in the emergency area providing instructions and information on the nature and extent of the emergency and any/all other applicable information that may be necessary or required in order to affect the proper degree of emergency response. The BNSF Resource Operation Call Center will maintain a list of emergency response agencies that would be reasonably expected to respond to a railway emergency on BNSF property.

<u>Sounder Duty Officer (SDO)</u> is on call 24x7 and is the primary contact at Sound Transit for emergency issues involving the Sounder commuter rail service during an incident. The SDO receives information from BNSF management (or crews) or local authorities and is responsible for making sure other departments at ST are notified through a "Command Post" email, as well as through direct phone calls to ST Customer Service, Media Relations, Safety, senior management and others as needed. The SDO also ensures current information communicated to Station Agents and the Security division, which occupies the ST Dispatch Center at Union Station. The SDO can be reached at 206-689-4922.

The Sounder Operations Manager is responsible to make sure current telephone numbers are maintained for the Sounder Duty Officer to be used when making notifications for internal and external communications. The phone list is updated at least annually.

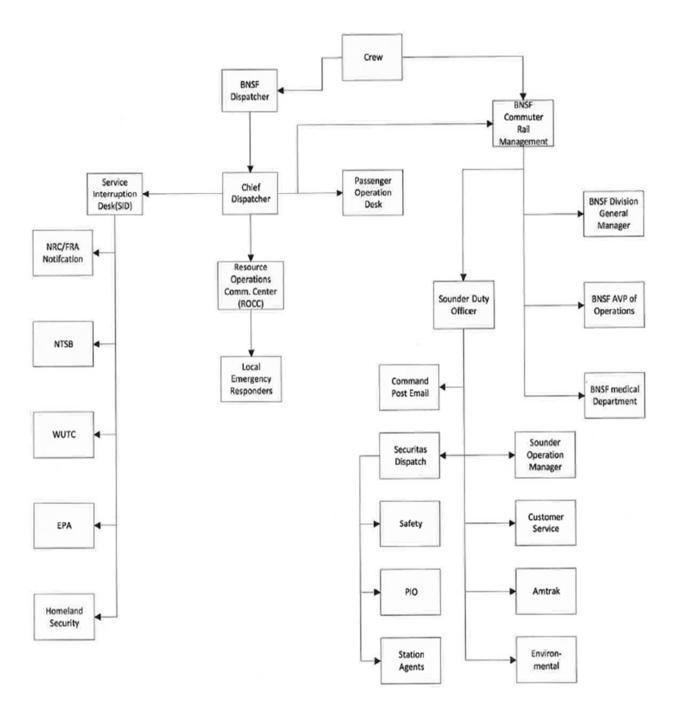
<u>Sound Transit Security Dispatch Center</u> will also notify Sound Transit personnel and may assist the BNSF NOC in notifying appropriate emergency response organizations in the emergency area providing instructions and information on the nature and extent of the emergency and any/all other applicable information that may be necessary or required in order to affect the proper degree of emergency response. The ST Security Dispatch will be called to report any incident. BNSF employees and officers can communicate with ST Security Dispatch at 206-398-5268, Notifications made by Security Dispatch include:

- Sound Transit Safety designated on call staff
- Public Information Officer (PIO)
- Sound Transit Police
- Customer Service
- Station Agents
- Sounder Duty Officer (if not already aware of emergency)

The Chief Security Officer is responsible to make sure the current telephone numbers to be used when making notifications for both internal communications and first responders is maintained. The list is updated in the event of a major staffing change or as needed.

See the following figures for a diagram of the flow of communications during an incident for both incidents in which notification originates with the train crew member (Figure 2) and incidents in which the incident notification has an external origin (Figure 3).

Figure 2 — Incident Notification: Crewmember Origin



External Notification Source (i.e. 911 dispatcher, bystander, Witness) Local Resource Operations Emergency Comm. Center (ROCC) Responders BNSF Crew Dispatcher BNSF Commuter Service Chief Interruption Rail Dispatcher Management Desk(SID) Passenger Operation Desk NRC/FRA **BNSF Division** Securitas Sounder Duty Notification General Dispatch Officer Manager Command NTSB Safety Post Email BNSF AVP of Operations Sounder Operation PIO Manager WUTC **BNSF** medical Department Customer Station Agents Service **EPA** Amtrak

Environ-

Figure 3 — Incident Notification: External Origin

Homeland Security

# 3.0 EMPLOYEE TRAINING AND QUALIFICATION

#### 3.1 On-Board Personnel

All on-board personnel (engineers and conductors) will be provided initial training, conducted by BNSF, on the requirements of this Plan to ensure that they are properly prepared to respond in the event of an emergency situation. The level and nature of the training provided will be dependent upon individual employee duties and responsibilities as required by their assigned position. At minimum, on-board personnel emergency response training will be provided according to the following schedule:

- Initial training for new, on-board employees shall be provided within 90 days of their initial date of service.
- Refresher training will be provided no less than every two calendar years.

When a situation warrants, (new equipment, modifications to existing equipment, changes or improvements to this Plan, etc.) more frequent training will be provided. In either case, a written competency exam will be administered no less than every two years to ensure that designated employees are qualified to perform the required actions, commensurate with their assigned responsibilities, during an emergency.

On-board, control center and emergency response communications center personnel shall be trained in the importance of and handling of passengers with disabilities. The training shall include conveying that this is an area in need of special attention during emergencies because of the inherent nature of these passengers that may require assistance for mobility.

The specific requirements of the Emergency Preparedness Training Program for onboard personnel are outlined in the seven essential elements that follow. To facilitate the understanding of these elements, appendices will be found at the end of this document integral to this training, including equipment, tools, and a rail system diagram.

- Rail Equipment Familiarization: Complete familiarization with the rail equipment associated with their assigned areas of responsibility. This element is intended to ensure that on-board crewmembers are qualified to operate the equipment under normal and emergency situations. While their normal, assigned duties may never require the use or operation of such equipment, an emergency may dictate otherwise. Rail equipment familiarization is therefore an essential element of our employee training program.
- Situational Awareness: Employees will be trained on the specific techniques that are required to properly evaluate and assess situations as they develop. Situational awareness is an essential element to ensuring proper response, reducing panic and passenger safety. As an emergency transpires, employees must also be prepared to respond in accordance with the nature of the emergency. Inappropriate actions, as well as over-reaction by responsible personnel, could create unnecessary stress and subsequently, may serve to increase the risk to passengers and/or other crewmembers.

- Passenger Evacuation: All on-board employees receive extensive training on the proper methods and techniques associated with the safe and orderly evacuation of passengers after an emergency. Employees will be trained on the circumstances, which would require evacuation (as opposed to requiring passengers to remain on board). Alternative evacuation routes and the order of preference regarding these routes are key elements of this portion of the training program.
- Evacuation of Passengers with Disabilities: Train crews and emergency response personnel will be trained in the specific requirements of evacuating ADA passengers. Training includes the fact that the second north car on train sets between Seattle and Lakewood, and the north car of train sets between Seattle and Everett are designated ADA accessible cars. The conductor is trained to assist these ADA passengers and maintains the number of ADA passengers on each trip. In the event of an evacuation, the conductor will either provide, with assistance from the engineer, or direct emergency response personnel to the ADA car, for manual removal of mobility-limited passengers.
- Coordination of Functions: In any type of operation, normal or emergency, successful results are dependent upon the proper actions of more than one person. In an emergency, such teamwork is essential to ensure maximum passenger safety and minimum loss. Employees will receive extensive training on the proper coordination of response activities. Each responding function has a specific responsibility during an emergency. By preparing employees through proper training, they will be better able to work together towards a common goal during any emergency event.
- *Hands-on Instruction:* Proper familiarization with on-board emergency response equipment is best accomplished through actual, hands-on instruction and training. Therefore, crewmembers will be provided on-train instruction on the location, function, and operation/use of on-board emergency equipment. This includes, but is not necessarily limited to, equipment such as fire extinguishers, emergency exit access (including windows), proper use of public address system/equipment, the on-board emergency (button) notification system, medical aids and equipment (such as stretchers, first aid kits, defibrillator, etc.), and any other emergency equipment.

Components of annual training for on-board personnel include:

# **Science of Sleep and Fatigue:**

- The Causes of Fatigue
- Sleep Requirements
- Alertness Strategies & Sleep Disorders

# **Passenger Operations - General:**

- Incident Management
- Unattended Items and Security Alert Levels
- Emergency Situation Debriefing/Critique Form
- Road Crossing Incident

- Incident Management Module Review
- Fundamentals of Customer Service
- Reporting for Duty
- Changing Ends: Cutting Out and Cutting In Controlling Ends
- Clearing Trains Final Inspection Before Yarding

# Passenger Operations Certification - Power Brake Law:

- Class 1, Class 1A, Class 2 and Running Air Brake Tests
- Movement Restrictions

# Passenger Operations Certification - Emergency Preparedness:

- Emergency Preparedness and Train Crew Responsibilities
- Equipment Familiarization, Car and Passenger Evacuation Procedures

# **Passenger Operations - Seattle:**

Door Procedures

# Crews are trained on an alternating year basis, as follows:

# Year A Training – Web Based Training and Testing

- Securing America's Railroads
- Human Resources
- Safety Topics
- Chemicals in the Workplace
- Hazardous Materials
- Hazardous Materials Exam 20 questions, open book 100% to pass
- Hearing Conservation

# Year B Training – Instructor-led classroom training with combination of open and closed book written exams

• GCOR, ABTH and Safety Rules, Power Brake Law, and Certification

Operations tests related to emergency preparedness are conducted for on-board personnel periodically. Results of operations tests, initial and periodic written examinations and results are maintained by the BNSF Network Operation Center in Ft. Worth, TX.

Operations Tests related to emergency preparedness and passenger operations include:

- Running air brake test
- Crew Communication / calling restrictions
- Passenger Awareness Announcements
- Crew Responsibilities
- Location / Operation of Emergency Appliances
- Delayed in Block
- Door Procedures
- Class 2 air brake tests
- Emergency Situation Responsibilities

#### 3.2 Control Center

The training for BNSF Control Center personnel is as follows:

- General knowledge of the Sound Transit and the BNSF Joint Passenger Train Emergency Preparedness Plan, plus the federal laws governing railroads. This information is kept at their desk.
- Protocols of actions and communications procedures to be taken by BNSF ROCC and NOC personnel in case of a passenger train emergency.
- Dispatchers will review and be tested on operational knowledge of:
  - Train Dispatcher Operators Manual
  - Passenger train emergency plans
  - Periodic and new hire training requirements
  - Debriefing and critique requirements
  - Operating Efficiency Testing requirements
  - SID Managers and Dispatchers will be trained in the physical characteristics and be able to provide guidance to the responding agencies for access to the site.
  - Familiarization of dispatch territory. Initial familiarization training will consist of review of head-end videos, track charts, and timetables. Periodic training will consist of head end video reviews and train rides over the territory making field observations, when practical. Track charts consist of a "Linear Referencing" system available to BNSF that provides detail of the entire alignment Sound Transit operates over including video.

Control Center personnel are required to successfully complete initial and periodic training, which includes classroom instruction, Web Based Training (WBT), and a written examination. Initial training will occur within 90 days after the employee's initial date of service. Periodic training occurs no less than every two years and is through BNSF Learning Portal.

#### Training includes:

- General knowledge of the BNSF / Sound Transit Emergency Preparedness Plan plus the federal law governing railroads. This information is kept on the BNSF intranet website of Passenger Train Emergency Preparedness Plans.
- Overview of actions to be taken by BNSF NOC personnel in case of a passenger train emergency. Dispatchers will review Train Dispatcher's, Operator's and Control Center Manual Rule 60.1
- Emergency events involving freight or Passenger Trains ensuring competent level of response knowledge in case of an emergency.

Periodic and new hire training requirements include:

- New Hire Training
  - o SI managers receive training when placed on position.
  - o ROCC personnel receive training and written, closed book test during classroom training prior to working as a dispatcher in the NOC.
- Periodic Training
  - o SI and ROCC managers receive written, closed book test annually.
  - o Dispatcher receive written, closed book rules exam biennially. Test includes requirements of TDOCOM 60.1 Emergency Events.
  - Operating Efficiency Testing requirements, including test 506 Emergency events at least once every 180 days.

Operations tests related to emergency preparedness are conducted periodically. Results of operations tests, initial and periodic written examinations and results are maintained by the BNSF Network Operation Center in Ft. Worth, TX.

If on board personnel are relieved for any reason by a freight crew, a minimum of one employee trained in Part 239.101 must be on board the train as it is moved to a location where an evacuation of passengers may occur.

# 3.3 Sound Transit

Sound Transit personnel who may respond to the scene of an emergency, at a minimum, will receive training in:

Course Title Description

- NIMS 700 FEMA's Introduction to National Incident Management System (NIMS)
- ICS 100 FEMA's Introduction to Incident Command System (ICS)
- ICS 200 FEMA's Single Resources and Initial Action Incidents for ICS

#### 4.0 JOINT OPERATIONS

#### 4.1 Sound Transit

Sound Transit provides funding for the service and owns track between Tacoma and Lakewood and is responsible for the maintenance of this section of track and all stations. Sound Transit also performs operational testing directly on track and signal crews that work on the ST owned segment. Sound Transit coordinates with contractors for operational crew testing for discretionary oversight.

The following requirements outline the general responsibilities applicable to passenger train emergency situation. Upon completion of emergency response, Sound Transit will:

- Ensure passengers and employees receive appropriate care and are dealt with in a compassionate manner.
- Arrange for the initial transportation of non-injured passengers and crew to a customer support process area.
- Preserve Sound Transit and other railway assets and interests at the accident site and customer support process areas.
- Respond with information as available to the relatives of passengers and employees regarding their condition and location.
- Resume commuter service, or provide transportation for passengers to their intended destinations by alternate means, with the shortest possible delay.
- Participate in the incident investigation process.
- Coordinate with emergency response agencies, as well as federal, state and local agencies.
- For environmental incidents, advise federal, state and local environmental agencies to ensure appropriate response actions.

#### **4.2 BNSF**

BNSF has fully addressed its host railroad responsibilities on its corridor and has jointly discussed, developed and adopted the joint Sound Transit and BNSF Passenger Train Emergency Preparedness Plan to comply with federal requirements. BNSF provides dispatching on the entire Sounder corridor and supplies crews for all Sounder trains operated. BNSF provides maintenance of track and signals on all its own territory. BNSF also operates occasional military trains on the Lakewood subdivision, formerly owned by BNSF.

As the Sounder system dispatcher, BNSF has key notification and training responsibilities, as outlined in the Communication and Training sections above. Responsibilities include for the Service Interruption Desk (SID) Manager, upon notification, to immediately notify the Resource Operations Call Center (ROCC), and then quickly contact all other pertinent government agencies. The ROCC will immediately contact all appropriate local emergency response agencies. The Dispatcher will protect the affected area from other train movements that could cause unnecessary interference and danger. The ROCC will assist emergency response agencies in accessing BNSF right-of way as quickly as possible.

The SID Manager will, if necessary, quickly notify BNSF environmental personnel and initiate the mitigating of any environmental issues that may result from a passenger train incident. BNSF will train all employees in the Passenger Train Emergency Preparedness Plan that would be directly involved as defined in the plan to handle a passenger train emergency. On BNSF, those involved are Dispatchers, Managers of Service Interruption, Resource Operations Center, Superintendent of Commuter Operations, Manager of Commuter Operations, Manager of Training, and TY&E employees.

# 4.3 Tacoma Rail

Tacoma Rail (TR) has joint operation between TR Junction and Freight House Square, the location of Sounder's Tacoma Dome Station. In addition, TR operates freight trains on the Sound Transit owned Lakewood subdivision between Nisqually Junction and South "M" Street (MP 3.2) in Tacoma, over which commuter service began in October 2012 as far south as Lakewood (MP 10.4).

# 4.4 Union Pacific

The Union Pacific Railroad operates a joint operation between Black River and Argo, along the BNSF corridor.

#### 4.5 Amtrak & Cascades

Amtrak and WSDOT Cascades service operate intercity passenger trains daily on shared trackage between Everett (on the north end) and Tacoma (on the south end) over the BNSF corridor. We share stations with Amtrak at Everett and Edmonds and with the WSDOT Cascades at Everett, Edmonds and Tukwila. Their operation is addressed in the joint Amtrak/BNSF Passenger Train Emergency Preparedness Plan. On occasion the agencies that share this track (BNSF, UPRR, Sound Transit and Amtrak & Cascades) will have an incident that will affect the on-time performance of the other partners. Since BNSF handles all the dispatching over their corridor, they will notify the partner agencies of the delays. Sound Transit also works closely with these partners on planned construction schedules along the corridor such as the recent Tukwila new platform construction and the current third track construction in the vicinity of Tukwila.

# 5.0 SPECIAL CIRCUMSTANCES

# 5.1 Tunnel Operations: Tunnels 1,000 Feet or Longer

(SEE APPENDIX 6)

# The Great Northern Tunnel

The Great Northern/King Street Tunnel is on the BNSF Scenic Subdivision at Mile Post 1.2 North Portal to Mile Post 0.0 King Street Station. Built in 1906 the Great Northern Tunnel is a single bore 34.5 foot wide tunnel, 5,142 feet long, with a cement reinforced sleeve that runs the entire length.

Double main tracks are at 15 foot centers, each centers at 7 ½ feet from tunnel walls. Track profile includes sea level grade, with 2 complete curves in the tunnel, requiring an authorized maximum operating speed of 30-MPH passenger trains and 20-MPH freight trains. Interior of the tunnel is equipped with minimum lighting designed for tunnel inspections and routine maintenance. Although this lighting may be illuminated in the event of an emergency, this lighting is not designed for emergency use and does not have a backup battery source. However, there is a headlight on both the locomotive and cab car on both ends of the train to aid in this illumination if needed and available. The tunnel does not have a mechanical ventilation system, although the city of Seattle Fire Dept. has a mobile tunnel fan which can be deployed in event of tunnel fire. Movements of trains through the tunnel are not affected by a 'purge time'. While operating in the Seattle tunnel, the primary communications between train and engine crew is maintained through the means of communications: 1) Hand-held to locomotive / control car, control console mounted railroad radio. 2) On-board intercom. The Seattle tunnel was completed in 1906 and does not have bench walls, refuge bays, emergency exits or man bays. Train crews can communicate via railroad radio to train dispatcher from the tunnel through the use of radio repeaters. In the event that evacuating a train inside the tunnel is necessary, our Sounder trains are equipped with Step Stools approximately 12" high. The Bombardier cars we operate have a step outside the side doors that is 18" above top of rail.

# The Everett Tunnel (Tunnel #16)

The Everett Tunnel is located on the Scenic Subdivision, east portal at MP 1783 and west portal at MP 1783.66 with a total length of 2440 feet. The tunnel is single bore, concrete lined, with dimensions of 16 feet wide and 22 feet above top of rail at the crown. In the tunnel is a single tangent track (no curves) with grade of 0.5% descending from east portal (55ft) to west portal (43ft). While operating in the Everett tunnel, the primary communications between train and engine crew is maintained through the means of communications: 1) Hand-held to locomotive/control car, control console mounted railroad radio, 2) Approved and issued Nextel 2 way radios, and 3) On-board intercom. The tunnel was completed in 1910 and has no bench walls, no lights, no ventilation system, no refuge bays, emergency exits, or man bays. However, there is a headlight on both the locomotive and cab car on both ends of the train to aid in this illumination if needed and available. In the event that evacuating a train inside the tunnel is necessary, our Sounder trains are equipped with Step Stools approximately 12" high. The Bombardier cars we operate have a step outside the side doors that is 18" above top of rail.

When Sound Transit trains operate in tunnels of 1000 feet or more in length, specific emergency preparedness and response actions are required. Emergencies occurring in tunnels can present unique readiness and response requirements.

Emergency Situations Guidelines – Tunnel:

- If the train can be moved, every effort should be made to move it from the tunnel in the most expeditious manner. If the train cannot be moved, the diesel engines must be shut down to minimize the effect of smoke and fumes.
- Notify the appropriate BNSF dispatcher of the location and nature of the emergency and what actions the crew is taking.
- The assessment and evaluation of passengers also include those in wheelchairs and or who may be considered special needs passengers. This will included but not limited to those who may appear to be disabled, those who appear to have special needs or those who identify themselves to the conductor.
- If immediate passenger evacuation is not deemed necessary (i.e., no derailment, fire, or other dangerous conditions present); crewmembers must evaluate the need for emergency lighting and if necessary provide for such on-board emergency light devices (light sticks, employee flashlights, battery-powered lamps, etc.).
- Crewmembers must ensure that access to emergency exits is clear and unobstructed.
   All means to egress (detrain) must be ready and available (e.g., doorways, aisles, stairs, etc.). Crewmembers must assess possible exit routes, both inside and outside the train. Every effort must be made to ensure that evacuation occurs in a calm and orderly fashion.
- Train Conductor and/or other on-board crewmembers shall communicate with the BNSF Dispatcher using the most effective means available. This may include radio, on-board telephone system (if operable) or cellular telephone. It should be noted, however, that most cellular service could not be depended upon to operate properly in a tunnel environment. The Train Conductor may therefore be required to dispatch a crewmember to make the required notification from outside the tunnel.
- The BNSF Dispatcher shall take the necessary actions and make the proper notifications. If appropriate, the BNSF Dispatcher will also notify other users of the affected rail system to ensure proper re-routing of operations.
- If necessary and practical, the BNSF Control Center will determine the availability of other trains located in the vicinity of the affected train and request assistance with evacuation and/or other services that may be required. If there are no trains in the general vicinity, a decision will be made to dispatch assistance to the affected area as soon as practical.

# 5.2 Electrified Territory

There is no electrified territory for Sounder.

# 5.3 Operation on Bridges Over 200 Feet Long

#### Ballard Bridge

This 1913 drawbridge at MP 6.3 on Sounder's north-line is 1,138 feet long and 22 feet wide on top. The bridge has a full-time bridge tender and will open for periodic maritime traffic as it spans over the Seattle ship canal that connects Elliott Bay with Lake Union. In the event of an emergency evacuation the preferred option would be to use other equipment to pull the disabled train off of the bridge to the next station. If was essential to evacuate customers from a train on the bridge, the crew would first stop all train traffic on either track in the vicinity of the bridge. Passengers could exit the cars since there is a walkway with handrail along the length of the bridge.

# **Tacoma Trestle**

This 1900 era wooden trestle owned by Tacoma Rail is single track, 1,700 feet long and 12 feet wide on the top. In the event of an emergency the same procedures for the Ballard Bridge would be followed regarding use of a rescue train. If needed, however, there is a walkway with handrail along the length of the bridge that would accommodate passengers in the event of an extreme emergency.

# Pacific Avenue Bridge

This 2012 concrete and steel single track bridge is owned by Sound Transit. The bridge spans over Pacific Avenue in downtown Tacoma and is currently single track, 212 feet long and 25 feet wide on the top. In the event of an emergency the same procedures for the Ballard Bridge would be followed. However, there is a walkway with handrail along the length of the bridge that would accommodate passengers.

# 5.4 Parallel Operations

The Train Dispatcher will ascertain whether any other railroads are blocked and if any other adjacent railroads could be affected. The area of the emergency will be secured from other train movements that could cause unnecessary interference and/or danger.

The parallel operations are: 1) joint trackage with Union Pacific RR between MP 3.0X and MP 10.0X of the Seattle Subdivision; 2) the Tacoma Railway segment between TR Junction (MP 0.7) and Tacoma Dome Station (MP 1.99). In both of these cases, BNSF is the dispatcher of the joint trackage.

Sound Transit Link light rail crosses over the top of BNSF near Boeing Access Road (MP 6.5X) on an aerial structure. There is no planned interface (station) that would connect the two services at this location.

Table 1 — Elevated Structures: Bridges or Tunnels – Seattle Subdivision

Location: Seattle Subdivision	Begin MP	End MP	Tracks	Structure
Seattle	0.1X	0.1X		Ped Bridge Overhead
	0.4X	0.4X	1,2, Lander Main	Bridge Overhead
	0.5X	0.5X		Bridge Overhead
	1.85X	1.85X		Bridge Overhead
Argo	2.65X	2.65X	1,2	Bridge Overhead
Van Asselt	6.90X	6.90X	1,2	Bridge Overhead
South Seattle	8.40X	8.40X	1,2	Bridge Overhead
Renton Jct.	9.85X	9.86X	1,2	Bridge Water Under
Tukwila	10.49X	10.49X	1,2,3	Bridge Overhead
Tukwila	10.75X	10.75X	1,2,3	Bridge Road Under
Orillia	13.20X	13.20X	1,2	Bridge Overhead
Kent	13.1X	13.1X	1,2	Bridge Overhead
	15.1X	15.1X		Bridge Overhead
	15.38X	15.38X		Bridge Overhead
	16.1X	16,1X		Ped Bridge Overhead
Thomas	17.60X	17.60X	1,2	Bridge Road Under
Thomas	17.7X*	17.7X*	1,2	Bridge Water Under

Auburn	21.6X	21.6X	1,2	Ped Bridge Overhead	
	21.8X	21.8X	1,2	Bridge Overhead	
	2.3X	2.3X	1,2	Bridge Water Under	
Pacific	24.90X	24.90X	1,2	Bridge Road Under	
Summer	26.25X	26.25X	1,2	Bridge Water Under	
Summer	27.25X	27.25X	1,2	Bridge Road Under	
Summer	27.45X	27.45X	1,2	Bridge Road Under	
Summer	27.60X	27.60X	1,2	Bridge Water Under	
				Salmon Creek	
Puyallup	29.4X*	29.4X*	1,2	Bridge Water Under	
				Puyallup River	
Puyallup	31.28X	31.28X	1,2	Bridge Overhead	
Puyallup	34.1X	34.1X	1,2	Bridge Water Under	
				Clark Creek	
Clear Creek	37.60X	36.60X	1,2	Bridge Water Under	
				Swan Creek	

Note \* indicates Flash Flood Warning

Table 2 — Elevated Structures: Bridges – Tacoma Mountain Belt Line

Location: Tacoma Rail Mtn. Belt Line	Begin MP	End MP	Tracks	Structure
		0.02	1	Daides and and an (asinfance)
Drainage Culvert	0.82	0.92	1	Bridge culvert under (reinforced
				concrete)
East Bay Street	1.07	1.08	1,2	Bridge (Steel) Road Under
Portland Ave,	1.12	1.13	1,2	Bridge (Steel) Road Under
East L Street	1.42	1.42	1,2	Bridge Overhead (reinforced concrete)
East J Street, East G	1.64	1.79	1,2	Bridge Road Under (Timber Rail
Street, and East 26 <sup>th</sup>				Trestle)
Street				

Table 3 — Elevated Structures: Bridges – Sound Transit Lakewood Line

Location: Sound Transit Lakewood	Begin MP	End MP	Tracks	Structure
Line				
B Street Gully	2.13	2.14	1	Bridge Gully Under
I-705 Southbound	2.14	2.14	1	Bridge Overhead (Reinforced Concrete)
I-705 Northbound	2.16	2.16	1	Bridge Overhead (Reinforced Concrete)
A Street	2.21	2.22	1	Pedestrian Bridge Under
Pacific Ave.	2.28	2.29	1	Bridge (Steel) Road Under
Tacoma Ave.	2.63	2.63	1	Bridge Overhead (Reinforced Concrete)
Yakima Ave.	2.78	2.78	1	Bridge Overhead (Reinforced Concrete)
SR 16	3.82	3.82	1	Bridge Overhead (Reinforced Concrete)
Union Ave.	4.92	4.92	1	Bridge Overhead (Reinforced Concrete)
66 <sup>th</sup> Street	6.89	6.90	1	Bridge (Steel) Road Under
Lakewood	10.0	10.0	1	Pedestrian Bridge Overhead

Table 4 — Elevated Structures: Bridges or Tunnels – Scenic Subdivision

Seattle (Control of the seattl	MP 0.11 1.30 1.9 2.3 2.9 3.26 3.42 4.52	1.11 1.30 1.9 2.3 2.9 3.26 3.44	1,2 1,2 1,2 1,2 1,2 1,2	Great Northern Tunnel Pedestrian Bridge Overhead Ped Bridge Overhead Ped Bridge Overhead Ped Bridge Overhead Ped Bridge Overhead
Seattle 1 2 2 2 Seattle 3	1.30 1.9 2.3 2.9 3.26 3.42 4.52	1.30 1.9 2.3 2.9 3.26 3.44	1,2 1,2 1,2 1,2	Pedestrian Bridge Overhead Ped Bridge Overhead Ped Bridge Overhead Ped Bridge Overhead
Seattle 3	1.9 2.3 2.9 3.26 3.42 4.52	1.9 2.3 2.9 3.26 3.44	1,2 1,2 1,2	Ped Bridge Overhead Ped Bridge Overhead Ped Bridge Overhead
Seattle 2	2.3 2.9 3.26 3.42 4.52	2.3 2.9 3.26 3.44	1,2 1,2	Ped Bridge Overhead Ped Bridge Overhead
Seattle 2	2.9 3.26 3.42 4.52	2.9 3.26 3.44	1,2	Ped Bridge Overhead
Seattle 3	3.26 3.42 4.52	3.26 3.44		
	3.42 4.52	3.44	1,2	
	4.52		1.0	Bridge Overhead
			1,2	Bridge Overhead
		4.52	1,2	Bridge Overhead
	5.14	5.14	1,2	Bridge Overhead
	5.45	5.45	1,2	Bridge Overhead
	5.65	5.65	1, 2	Bridge Overhead
Seattle 6	6.20	6.30	1, 2	Ballard Draw Bridge
Seattle	6.58	6.58	1, 2	Bridge Overhead
Seattle 6	6.77	6.77	1, 2	Bridge Road Under
Seattle 6	6.97	6.67	1, 2	Bridge Road Under
Seattle	7.91	7.91	1, 2	Bridge Road Under
Seattle 8	8.15	8.15	1, 2	Pedestrian Bridge Under
Seattle	10.12	10.12	1, 2	Pedestrian Bridge Overhead
Richmond Beach	13.86	13.86	1, 2	Private Bridge Overhead
Richmond Beach	14.50	14.50	1, 2	Bridge Overhead
Richmond Beach	15.15	15.15	1, 2	Private Bridge Overhead
Richmond Beach	15.21	15.21	1, 2	Private Bridge Overhead
Edmonds 1	17.00	17.00	1, 2	Private Bridge Overhead
Edmonds 2	23.34	23.34	1, 2	Pedestrian Bridge Overhead
Mukilteo 2	28.37	28.37	1, 2	Bridge Overhead
Mukilteo 2	28.64	28.64	1, 2	Pedestrian Bridge Overhead
Everett 3	31.57	31.57	1, 2	Pedestrian Bridge Overhead
	1783.96	1783.96	1	Bridge Road Under
	1783.78	1783.78	1	Bridge Road Under
	1783.66	1783.20	1	Everett Tunnel
	1783.19	1783.19	1	Bridge Overhead
	1783.15	1783.15	1	Bridge Overhead
	1783.09	1783.09	1	Bridge Overhead
	1782.97	1782.91	1	Bridge Overhead
	1782.92	1782.92	1	Bridge Overhead

Note \* indicates Flash Flood Warning

# 6.0 LIAISON WITH EMERGENCY RESPONDERS

# 6.1 Availability of Training Materials

Sound Transit will make its emergency preparedness and response training materials available. This action is intended to ensure an expected level of competency should emergency responders ever participate in a simulated or actual emergency event.

Training materials may include, but are not limited to, video instruction, workbook exercises, car and locomotive information, written examination and evaluation books, online training, CD's and other such training modules that have been proven successful. The plan will be accompanied by a list of on-board emergency tools and where they are located, as well as diagrams of both the passenger cars and the rail corridor (as it intersects roadways) to facilitate easy access for responders (as found in the appendices).

Training is conducted jointly by BNSF, Sound Transit in coordination with the various emergency responder agency personnel. Training shall focus on the railroad environment, railroad operations, emergency access to passenger cars, their respective hazards, safety precautions, ADA accessibility to train cars and where on the train passengers needing assistance or with disabilities will be found, and the typical location of railroad facilities and equipment. Methods of communications between railroad officials and emergency response crews shall also be covered, as well as the need for development of a pre-plan. Full scale evacuation exercises will involve mobility impaired passengers, whenever possible. These exercises will include biennial situations using real people with simulated injuries where feasible, but may also include manikins. Related discussions with Sound Transit employees, BNSF employees, and emergency responders will be a part of post event critiques and debriefs, available to all participants. (See Section 12 - Emergency Simulations below for more details.)

Whenever possible, Sound Transit will offer this training directly to the on-line response agency or organization. Otherwise, the training materials will be provided to the responsible official(s) within the appropriate emergency response organizations (e.g., state training institutes, firefighter organizations, police academies, local emergency response teams, etc.).

When training is not provided directly, Sound Transit shall request a copy of class rosters from each organization that utilizes the training materials to verify adequate dissemination of the required information to the appropriate levels within the response organizations.

Random audits of response agencies and possible site visits may be conducted periodically by Sound Transit officials to determine the adequacy of the training effort. Assistance and direction shall be provided as necessary.

# 6.2 Distribution of Emergency Plan

In addition to training requirements, Sound Transit shall also ensure that an appropriate number of copies of this Plan (or applicable portions thereof) are adequately distributed to all emergency response organizations that may be required to participate in an emergency situation or simulation. These plans include the extensive Linear Referencing system complete with video of the entire Sounder alignment and diagrams of our equipment.

Sound Transit shall distribute copies of this plan (or applicable portions thereof) to emergency response agencies at least once every three years. The primary method of distribution is through county emergency response agencies. If significant changes are made in the plan, updated versions will be distributed accordingly.

Of particular interest to response organizations will be route maps and the physical characteristics and peculiarities of the Sound Transit route. In addition, the names, titles, and contact telephone numbers of railroad officials must also be provided to ensure adequate communication and coordination.

# 7.0 EQUIPMENT AND ON-BOARD EMERGENCY FEATURES

#### 7.1 General

On-board emergency equipment, including, at a minimum, the following:

- Four fire extinguisher per passenger car
- One pry bar per passenger car
- One functioning flashlight per on-board crewmember
- One standard equipped first aid kit per each passenger train
- 30 ea. Cyalume Emergency Light Sticks
- One Automatic External Defibrillator per train

# 7.2 On-Board Emergency Lighting

Passenger cars are equipped with emergency lighting. Emergency lighting is tested at 180 day intervals to conform to part 238. Auxiliary lighting (i.e., hand held flashlights) shall be provided to each on-board crewmember for use during emergency situations, as required. Each flashlight shall be capable of functioning continuously for a period of not less than 15 minutes, and intermittently for not less than 60 minutes. Mechanical and TY&E crewmember shall verify the proper operation of their auxiliary lighting equipment at the beginning of each assigned shift. In the event replaceable power cells are used, spare batteries shall be kept available at all times and provided to crews if and when necessary. Rechargeable flashlights shall remain fully charged and ready for use at all times.

# 7.3 Maintenance

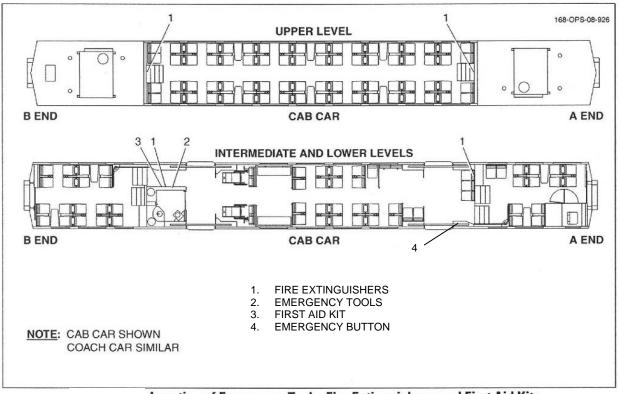
To ensure adequate preparedness, each flashlight, first aid kit and other emergency equipment (pry bars, fire extinguishers, etc.) shall be inspected, maintained, or replaced (as required) prior to departure as a part of the Daily Inspections. More frequent inspections and maintenance may be required if the equipment has been used or tampered with at any time between the established maintenance schedule. On-board crewmembers shall regularly check the status of this equipment during the normal course of their assigned duties. Anomalies shall be reported immediately so that the equipment can be repaired or replaced at the next possible opportunity.

# 7.4 Location of Emergency Equipment

# Figure 4— Location of Emergency Equipment

# **Location of Emergency Equipment:**

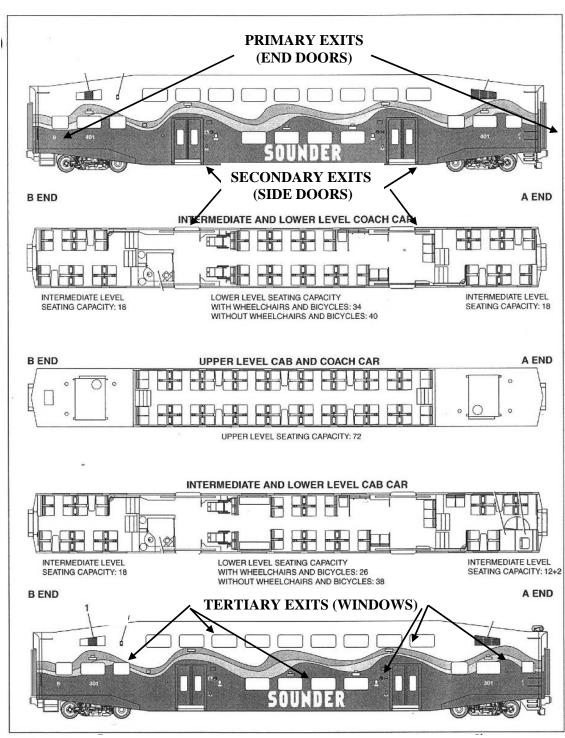
# Tools, First Aid Kits, Fire Extinguishers, Emergency Button



Location of Emergency Tools, Fire Extinguishers, and First Aid Kits

# 7.5 Cab and Coach Car View Sheet

Figure 5 — Cab and Coach Car View Sheet



**Emergency Exit Priority Diagram (with General Layout)** 

# 7.6 List of Emergency Tools

# Table 5 — List of Emergency Tools

# **List of Emergency Tools**

# **On-board Emergency Equipment**

The On-board Emergency Equipment includes, as a minimum, the following:

- One fire extinguisher per passenger car (Type ABC)
- One pry bar per passenger car
- One auxiliary portable lighting (flashlight) per car
- One standard equipped first aid kit per each passenger train includes:
  - o Two small gauze pads (at least 4x4 inches);
  - o Two large gauze pads (at least 8x10 inches);
  - o Two adhesive bandages;
  - o Two triangular bandages;
  - o One package of gauge roller bandage that is at least two inches wide;
  - o Wound cleaning agent, such as sealed moistened towelettes;
  - o One pair of scissors;
  - o One set of tweezers;
  - o One roll of adhesive tape;
  - o Two pairs of latex gloves; and
  - o One resuscitation mask.

# **Emergency Button**

- Sends a tone throughout the train when activated
- Displays the car number on the Variable Message System on each car in the train to notify which car was activated
- Displays the car number on the outside Destination Sign of every car with the car number of the car that was activated
- Will scroll the car numbers in the event multiple cars are activated
- Only the conductor can silence the alert (or anyone with a proper key)

# 7.7 Emergency Exits

Means of Exiting During an Emergency: The best path for exiting is described in on-board signage and will guide passengers unless otherwise directed by a conductor. The primary exit is through the end-door to an adjacent car (as marked with the lower level exit pathway markings). This path will keep passengers on board if the threat is localized to a single car. The secondary exit is to be the side doors on the train, of which each car has four. This will be the best exit if the greater threat remains for being on-board the train, than exiting. The third exit, in priority, is exiting through the emergency windows, which can be removed, as signed, by pulling on the emergency release handles. These exits should be used when other exits are blocked or extreme conditions such as a car being derailed and on its side. Emergency responders may have access to ladders for detraining under some circumstances. Emergency responders may also access a car derailed and on its side by cutting a hole in the roof in the areas designated as safe to cut.

<u>Marking of Exits</u>: All emergency exits and means of egress (e.g. doors, windows) from every passenger train are clearly and legibly marked on the inside of the car with luminescent material or, where appropriate, shall be adequately illuminated to facilitate passenger recognition and access.

Operating instructions for each exit shall be posted at or near the respective exit in clear, simple, and understandable language. Where possible and appropriate, pictograms may be used as long as proper exit operation is understandable, (pictographs reduce the potential for misunderstanding by non-English speaking passengers).

All emergency egress door exits and windows shall be clearly marked with reflective materials on the outside of the train so that emergency responders can quickly identify such exits. Instructions for operating the exits shall be posted in clear and simple language at or near the door exit.

Doors on the very end of the train-set (adjacent to the locomotive or the cab car end) are not available for emergency exiting, and the exit pathway signage at the end of the luminescent strip will direct riders to emergency window exits, if applicable. Signage stating "NO EXIT" appears with a closed cab door, when cab is crew occupied, and signage stating "NO THROUGH PASSAGE" appears when the car is positioned at the end of the train next to the locomotive.

<u>Inspection, Maintenance, and Repair:</u> To ensure optimum readiness of all emergency exits and means of egress (doors and windows), each such exit shall be visually inspected at least once every 92 days. Defective or otherwise improperly operating exits shall be repaired or replaced <u>before</u> the train can be allowed to continue in passenger service.

In addition to the monthly inspection and maintenance schedule, a representative sample of emergency window exits shall be tested at least every 180 days to ensure proper operation. Defective or otherwise improperly operating window exits shall be repaired or replaced <u>before</u> the train can be allowed to continue in passenger service.

**Records:** All records of inspection, repair, and maintenance of emergency window and door exits will be maintained at the appropriate Maintenance & Repair facility headquarters (i.e., Amtrak Holgate Yard, Seattle, WA.).

Records must be maintained for a minimum period of two calendar years following the end of the calendar year to which they relate. However, when deemed necessary (e.g., due to the nature of the information contained in the records), longer retention periods may be prescribed.

As policy, Sound Transit shall make all records of inspection, maintenance, and repair of emergency exits available to interested parties. Access shall be provided during normal business hours.

Records of all inspection, maintenance, and repair of emergency doors and windows shall be maintained.

Access to electronic recordkeeping databases will be limited to only those authorized. A terminal capable of accessing necessary electronic records is available at both the system and division headquarters. If required, a designated representative shall be authorized to authenticate the information retrieved from the database as true and accurate copies of the electronically kept records.

A computer terminal, facsimile machine and printer capable of retrieving necessary information and producing information in a usable format will be made available to FRA and State representatives. All such representatives will be provided with immediate access to both hard copy and electronic records for inspection and copying during normal business hours and will be provided printouts of records upon request.

Maintenance of on-board emergency equipment pursuant to 49 CFR 239 and 49 CFR 238 is performed and documented by Amtrak at the Holgate Yard, Seattle, WA. Please refer to Table 4 above which contains a car diagram showing the locations of emergency equipment.

# 8.0 PASSENGER SAFETY INFORMATION

<u>Passenger Awareness Program:</u> Passenger safety and comfort are the primary concern during all Sound Transit passenger train operations. This is especially true during and following any type of emergency. In an effort to prepare its passengers for the unlikely event of an emergency, Sound Transit shall take specific measures to properly and effectively communicate emergency information using all practical means available.

- 1. Legible, clear and simple emergency instructions shall be conspicuously posted throughout every passenger car. Methods include, but are not limited to the use of bulkhead signs, seat back decals, seat cards or other distinct posted materials.
- 2. More detailed, printed, emergency instruction with diagrams may be provided on board all vehicles located in the literature racks, available free of charge to passengers.
- 3. Frequent, brief, on-board announcements will be made to ensure passengers are consistently informed of the actions required should an emergency occur.
- 4. In some locations, Sound Transit may employ the use of regularly scheduled, automated public service announcements at stations as well as signs and video monitor displays to consistently keep the traveling public informed and aware.
- 5. Signage on each car points out the availability of Passenger Emergency Buttons (A end of each car) indicating the ability to notify on-board crew personnel of a need for emergency attention. When pressed, the button will sound a special tone then via the Variable Message Signage system signal the car number where the conductor should go for direct communication with the passenger wanting to convey such an emergency situation.
- 6. Awareness Education Passengers are through literature and announcements encouraged recognize hazards and report emergency situations. Signage includes instructions on operation of emergency equipment, and special needs passengers will be given special attention by onboard crewmembers.

# 9.0 PROCEDURES REGARDING PASSENGERS WITH DISABILITIES

The Railroad is committed to address passengers with disabilities in emergency situations. Passengers with disabilities will be handled in accordance with the Sounder crew training program and the instructions for handling passengers with disabilities.

# 9.1 Prompt Identification and Procedure

During an emergency situation, on board crew members will, as soon as possible, make a preliminary sweep through the train to identify passengers who may need extra assistance, taking note of their presence and general location. It is understood the railroad does not have knowledge that such a passenger has a disability unless a crewmember has the actual knowledge of the disability, such as where a passenger (or companion or fellow-passenger) has expressly informed a crewmember on the train of the disability or where the disability is readily apparent. While the identification of passengers who may need extra assistance is primarily in relation to passengers with disabilities, this may also apply to traveling alone and senior citizens. In an emergency, this information is to be immediately communicated to the dispatcher so that emergency responders and railroad management can take into account any special requirements of passengers is disabilities when preparing plans for moving or evacuating the train or part of a train. Railroad personnel must realize a person with a disability:

- May have conditions which could be aggravated during evacuation, so an inquiry on site for any particulars involved with moving that passenger may be needed;
- May become impaired or trapped by the aids that are meant to improve their mobility (e.g., wheelchairs, crutches, walkers);
- May not be able to physically contribute to their own evacuation.

# 9.2 Training and Testing

On-board, control center and emergency response communications center personnel shall be trained in the importance of and handling of passengers with disabilities. The training shall include conveying that this is an area in need of special attention during emergencies because of the inherent nature of these passengers that may require assistance for mobility.

# 9.3 Engaging the Disability Community

In order to facilitate a thorough engagement of the disability community into the training and practice of responding to rail related emergencies, the full scale exercises that take place (per §239.103) will include the invitation to members of the disability community for participation in exercise design and/or full scale exercises as appropriate. Sounder will specifically solicit the participation of members of the disabled community, elderly, and other special needs population to participate in drill planning and exercising through the Sounder Passenger Advisory Committee and other sources. All Sounder simulations will include the scenario specifics addressing the safety of persons with disabilities otherwise needing special assistance. The effectiveness of handling disabled/special needs passengers will be evaluated during the Debriefing and Critique session.

# 9.4 Debriefing

An important aspect of evaluating the ability to meet the needs of the disability community will take place at the debriefing after the emergency exercise. A specific topic for discussion and evaluation will take place regarding this matter after each §239.103 emergency simulation exercise.

# 9.5 Conductor Awareness of Passengers with Disabilities

Knowing that conductors will not always have knowledge of which passengers have disabilities, unless expressly informed, the conductors will take mental note of the location and number of passengers requiring additional assistance (e.g. those who are visibly disabled or in a wheel chair etc.) in order to be able to respond and direct responders to the special needs in the event of an emergency requiring a train evacuation.

# 10.0 PASSENGER TRAIN EMERGENCY SIMULATIONS

# 10.1 Familiarization and Training

All emergency responder agencies and providers will be given the opportunity to participate in Sounder commuter rail emergency familiarization and training sessions. Participation in these sessions will be documented, with documentation maintained at Sound Transit.

# 10.2 Full Scale Simulations

To ensure maximum preparedness of both company and external emergency responders, Sound Transit and the BNSF will conduct full-scale emergency simulations on selected routes under predetermined, simulated, emergency conditions.

Sounder will solicit the participation of members of the disabled community, elderly, and other special needs populations to participate in drill planning and exercising through the Sounder Passenger Advisory Committee and other sources. All Sounder simulations will include in the scenario specifics addressing the safety of persons with disabilities or otherwise needing special assistance. The effectiveness of handling disabled/special needs passengers will be evaluated during the Debriefing and Critique session

Emergency simulations will be performed in consideration of the variety of emergency scenarios that could reasonably be expected to occur during normal operation. In a full scale simulation, volunteers are recruited to play the role of injured and non-injured passengers. Volunteers are recruited from a number of sources, including CERT teams, rail employees, members of the disabled community, and other groups.

All possible measures will be taken to ensure the cooperation, coordination and participation of those emergency responders who voluntarily agree to participate in the emergency simulation.

Successful simulations depend in large part on tabletop drills / exercises and the planning effort occur between Sound Transit and all participating agencies, organizations and individuals. In this regard, Sound Transit will schedule or participate in coordination meetings in advance of any scheduled simulation date. Participation in the planning phase and actual event will be coordinated thru the host agency and will include state and local officials, and FRA representatives, as available.

Simulated emergencies offer an excellent opportunity for subsequent training and lessons learned exercises. Therefore, whenever possible and practical, Sound Transit shall record digital images of the simulation and related pre- and post- activities for further evaluation and for use in training programs later.

Sound Transit and the BNSF will plan, schedule, conduct, and evaluate at least one full-scale emergency simulation every two (2) years.

# 10.3 Debriefing and Critique

<u>General Requirements:</u> To ensure maximum effectiveness of this emergency preparedness plan, Sound Transit will conduct a coordinated debriefing session following each emergency simulation exercise as well as after each actual passenger train emergency situation. A sample form and questions appear in Appendix 5.

During the debriefing session, all participants shall be encouraged to offer their critique of the emergency event (actual or simulated). Critique and criticism shall be directed at the effectiveness of the established provisions of this plan and shall specifically attempt to identify areas for improvement. Crewmembers complete a debrief form and may participate in further debrief sessions following each emergency evacuation.

Sound Transit will ensure that debriefing and critique sessions are held no later than 60 days from the date of the subject emergency event (whether actual or simulated). For simulated exercises, the debriefing is held immediately following the exercise and includes all participants, including emergency responders, Sound Transit responders (Operations, Safety Security, Operations ADA Manager, and others involved in the drill) BNSF responders (crews, Safety Staff, Rail Superintendent, Trainmaster, and others involved in the drill), other rail responders (Amtrak, Tacoma Rail), volunteer passengers, and volunteer passengers with real or simulated disabilities.

Note: If the particular emergency situation involved a collision between passenger railroad rolling stock and a pedestrian, a trespasser, or a motor vehicle at a highway-rail grade crossing and it <u>did not</u> lead to the fatality or injury of a passenger(s) or crewmember(s), or the evacuation of the train, then Sound Transit may elect not to conduct a debriefing or critique session or may elect to do so at some time later than 60 days following the date of the event, at the discretion of Sound Transit.

<u>Purpose of Debriefing and Critique:</u> As stated earlier, it is Sound Transit's general policy to provide maximum passenger safety and comfort, especially during and following an emergency event. To ensure that debriefing and critique sessions evaluate critical areas and result in the identification of opportunities for process improvement, the following elements will be examined:

<u>Communications</u>: Essential to the overall emergency response effort is effective communication between the Train Conductor and crewmembers, between crewmembers and passengers, between crewmembers and Dispatcher/Control Center personnel, and between Sound Transit personnel and responding organizations. Therefore, the entire process (i.e., communication procedures and equipment) shall be critiqued and areas for improvement identified.

<u>Timing:</u> In order to effect an adequate level of emergency response, the amount of time between the emergency occurrence (or simulation) and initial notification is critical. All efforts will therefore be taken to identify reasons for any delays in the notification process. With the understanding that every situation (actual or simulated) will present different conditions and different circumstances, new requirements will be developed and implemented when appropriate to minimize this timing sequence.

<u>Control Center Actions</u>: In addition to determining if the overall communication effort itself is adequate, the Control Center notification process will also be examined. The railroad officials and response agencies notified, and the adequacy of the notification list, must be evaluated to determine if any areas for improvement are possible.

<u>Responsiveness</u>: The success of any emergency response situation or simulation can be best measured by the responsiveness of the agencies and personnel supporting the emergency (e.g., responders, railroad officials, etc.). Quick and effective response is the cornerstone of this Plan and a true measure of the level of preparedness of each responsible agency and/or organization.

<u>Effective Passenger Egress</u>: While every emergency or simulation may not require passenger evacuation, those that do must be evaluated. Passenger egress through emergency exits must be accomplished efficiently while ensuring maximum safety and minimum risk. Egress of passengers with disabilities will also be included in the after action discussions.

**Records:** All records of debriefing and critique sessions will be maintained at the Sound Transit offices, located at Union Station, 401 South Jackson Street, Seattle, WA 98104.

Records must be maintained for a minimum period of two calendar years following the end of the calendar year to which they relate. However, when deemed necessary (e.g., due to the nature of the information contained in the records, the value of the lessons learned, use of information in training materials, etc.), longer retention periods may be prescribed.

In addition to the actual results of the debriefing session, the records containing the date and location of the passenger train emergency situation or simulation, the date of the debriefing session, and the names of all those who participated in the debriefing session will be documented.

As a general matter of policy, Sound Transit shall make all records of debriefing and critique sessions available to interested parties, including but not limited to, representatives of the Federal Railroad Administration, state or local representatives, internal company auditors, and other such parties that may have a specified interest. Access shall be provided during normal business hours.

# 11.0 OPERATIONAL (EFFICIENCY) TESTS

To ensure optimum efficiency of all on-board, Control Center, and Police dispatch personnel, Sound Transit and BNSF shall administer periodic operational tests. The primary objective of the test is to verify the level of understanding of the applicable requirements of this Plan as well as their readiness to respond in case of an emergency.

# 11.1 Records

All records of operational (efficiency) tests will be maintained by the BNSF.

In addition to the actual results of the operational (efficiency) tests, the records containing the date, time, and place of the test, as well as the name and title of the person who administered the test, the name of each employee tested, and other relevant information will be documented.

Records must be maintained for a minimum period of one calendar year following the end of the calendar year to which they relate. However, when deemed necessary (e.g., due to pending litigation), longer retention periods may be prescribed.

As a general matter of policy, BNSF shall make all records of operational (efficiency) tests available to interested parties, including but not limited to, representatives of the Federal Railroad Administration. Access shall be provided to the FRA during normal business hours.

# 11.2 Electronic Recordkeeping

<u>Operational</u> (<u>Efficiency</u>) <u>Tests</u>: Where appropriate, electronic records of all operational (efficiency) tests shall be maintained. If required, a designated representative shall be authorized to authenticate the information retrieved from the database as true and accurate copies of the electronically kept records.

As a general matter of policy, the BNSF shall make all electronic records of operational (efficiency) tests available. Access shall be provided during normal business hours.

#### 12.0 PLAN IMPLEMENTATION

#### 12.1 Table of Revisions

Item	Revision	Date
6.0 Communication	Added text:	
	Conductors responsibilities as Incident Commander	11/01/2007
7.0 Employee Training and	Added Test:	11/01/2007
Qualification – Control Center	Last bullet point	
9.0 Special Circumstances		11/01/2007
All	Review and update of document information	10/9/2008
All	Review and update of document information	5/10/2013
General update and adding	Review and update of document information	10/6/2015
Procedures for Passengers with		
Disabilities section		

# 12.2 Updates

The FRA does not require annual updates of this plan; however when a plan is updated in must be approved by the FRA pursuant to 49 CFR 239.201.

#### 12.3 Homeland Security

The FRA does not require that Homeland Security requirements are contained in this plan. These requirements are contained in the Sound Transit System Security and Emergency Preparedness Plan.

#### 12.4 Conclusions

This Passenger Train Emergency Preparedness Plan (with Attachments) shall be implemented during any Passenger Train emergency situation that may occur during the course of normal operating conditions on the Sounder corridor, whether BNSF, TR or ST territory. While the overall objective is to ensure compliance with Federal Railroad Administration requirements (49 CFR 238 and 239), this Plan may include more stringent requirements where the need for such is indicated.

#### 13.0 DEFINITIONS AND ACRONYMNS

NOTE: The following definitions, acronyms, and abbreviations are either directly applicable to this Plan or are generally applicable to passenger train emergency response situations.

American Disability Act (ADA): Americans with Disabilities Act was enacted so those citizens with disabilities would have the same access to public facilities, including transit services, as all other citizens.

Customer Support Process Center (CSPC): A location at or near the incident site where customers and employees can be comfortably accommodated.

**Control Center:** The main traffic control and dispatching function for a specific territory. BNSF railroad control centers are listed in Section 5.0 of this plan. The National Communications Center (NCC), i.e., the Sounder Control Center, for the purposes of this plan, is also considered a Control Center.

**Emergency Situation:** An unexpected event related to the operation of commuter train service involving a significant threat to the safety or health of one or more persons and requiring immediate action, including:

- Derailment.
- Fatality at a grade crossing.
- Passenger or employee fatality, or a serious illness or injury to one or more passenger or crewmembers requiring hospitalization.
- Evacuation of a passenger train.
- Security situation.

*Emergency Medical Service (EMS)*: Any agency which provides medical services in emergency situations, including paramedic, emergency medical technician, nursing, and/or physician services.

*Emergency Preparedness Plan:* A document, which focuses on preparedness and response to train emergencies.

*Emergency Responder:* A member of a police, fire, rescue or emergency medical service or other public safety agency providing and/or coordinating emergency services.

**Emergency Response Communications Center (ERCC)**: A central location designated by a railroad with responsibility for establishing, coordinating, or maintaining communication with emergency responders, representatives of adjacent modes of transportation, and appropriate railroad officials during a passenger train emergency.

**Employee Assistance Program (EAP)**: Provides guidance, support, and resources to employees and family members for resolution of emotional, financial, legal, family, marital, and substance abuse problems. In a major occurrence, EAP also provides assistance, support, and resources to passengers and railroad employees.

**Federal Railroad Administration** (**FRA**): An agency of the Federal Department of Transportation that develops and enforces rail safety regulations, investigates and analyzes railroad accidents, and conducts safety assessments of railroads.

*Host Railroad:* The operating railroad that owns the property upon which train service is conducted. The host railroad may provide control services and related functions to ensure the safe and efficient movement of passenger and freight trains. The railroad may provide passenger train service using its own equipment and/or it may allow other entities' trains to provide passenger service on its property.

*Incident Command Post (ICP)*: The primary, on-scene control point of emergency operations during initial response actions and subsequent investigative activities.

**Linear Referencing System (LRS):** A diagram of the rail corridor useful for access information from an emergency responder's perspective. It depicts the roadways and structures that intersect the rail line in the context of the rail mileposts and track configurations.

*National Communications Center (NCC):* Amtrak Police Department operated Control Center located in Philadelphia, PA. The NCC operates the same as all other centralized emergency dispatch centers. As an emergency dispatch center, the NCC receives emergency calls from several sources. The NCC is responsible for ensuring initial or follow-up notification of local emergency response agencies anywhere in the country and ensures adequate Amtrak Police support if necessary. (1-800-832.5452)

National Transportation Safety Board (NTSB): An independent federal agency that reports directly to Congress. It investigates and analyzes major transportation accidents (railroad, aviation, highway, marine, and pipeline) and prepares a public report on its findings, conclusions and recommendations.

*Network Operations Center (NOC):* Located in Fort Worth, Texas, the NOC is BNSF's major control center and is the corporate focus of emergency responses. Satellite control centers are located at Spring TX, San Bernardino CA, and Kansas City KS. (Fort Worth TX, 1-800-832-5452)

**Passengers Needing Assistance (PNA):** Used to refer to passengers in a wheelchair or with another disability that needs special assistance.

**Resource Operations Communications Center (ROCC):** Located in Fort Worth, Texas, the ROCC is BNSF's system railway police center. This is BNSF's emergency response control center.

Security Dispatch Center: The communications desk located at Sound Transit's Union Station provides 24-hour dispatch services, including contact with Station Agents and ST Police (and CCTV, PA and Variable Messaging Signage at designated stations) for all Sound Transit services and facilities. (General: 206-398-5268; incoming hotline for BNSF related emergencies: 206-689-3300).

Service Interruption Desk (SID): Located in Fort Worth, Texas, the two Service Interruption Desks are BNSF's system notification, documentation and dissemination of FRA required information.

**Sounder Duty Officer** (SDO): A designated member of the Sounder Operations Division available 24 x 7 to be the first contact for any Sounder related emergency or operational issue that may arise. This role rotates among several employees and is always available at 206-689-4922.

## 14.0 APPENDICES

## 1. APPENDIX 1 - CURRENT SOUNDER SCHEDULE

Sounder Schedule (Effective Sep. 28, 2015)

# Lakewood to Seattle (Northbound)

Train No	Lakewood	South Tacoma	Tacoma	Puyallup Station	Sumner Station	Auburn Station	Kent Station	Tukwila Station	Seattle
1500	4:41 a.m.	4:46	4:55	5:06	5:11	5:20	5:27	5:34	5:54
1502	5:16	5:21	5:30	5:41	5:46	5:55	6:02	6:09	6:29
1504	5:46	5:51	6:00	6:12	6:17	6:26	6:33	6:40	6:59
1506	6:06	6:11	6:20	6:32	6:37	6:46	6:53	7:00	7:19
1508	6:26	6:31	6:40	6:52	6:57	7:06	7:13	7:20	7:39
1510	6:46	6:51	7:00	7:12	7:17	7:26	7:33	7:40	7:59
1512	:	:	7:35 a.m.	7:46	7:51	8:00	8:07	8:14	8:34
1514	:	:	8:10	8:21	8:26	8:35	8:42	8:49	9:09
1516	:	:	4:30 p.m.	4:41	4:46	4:55	5:02	5:09	5:28
1518	:	:	5:00	5:11	5:16	5:25	5:32	5:39	5:58

## **Seattle to Lakewood (Southbound)**

Train No	Seattle	Tukwila Station	Kent Station	Auburn Station	Sumner Station	Puyallup Station	Tacoma	South Tacoma	Lakewood
1501	6:15 a.m.	6:27	6:34	6:41	6:50	6:54	7:13	:	:
1503	6:50	7:02	7:09	7:16	7:25	7:29	7:48	:	:
1505	3:12 p.m.	3:24	3:31	3:38	3:47	3:51	4:10	:	:
1507	3:42	3:54	4:01	4:08	4:17	4:21	4:40	:	:
1509	4:12	4:24	4:31	4:38	4:48	4:52	5:04	5:13	5:25
1511	4:32	4:44	4:51	4:58	5:08	5:12	5:24	5:33	5:45
1513	4:52	5:04	5:11	5:18	5:28	5:32	5:44	5:53	6:05
1515	5:12	5:24	5:31	5:38	5:48	5:52	6:04	6:13	6:25
1517	5:50	6:02	6:09	6:16	6:25	6:29	6:41	6:50	7:03
1519	6:20	6:32	6:39	6:46	6:55	6:59	7:11	7:20	7:33

# Sounder Schedule (Effective Sep. 28, 2015)

# **Seattle to Everett (Northbound)**

Train No	Seattle	Edmonds Station	Mukilteo Station	Everett Station
Amtrak 510*	7:45 AM	8:12	:	8:36
1700	4:05 PM	4:32	4:47	5:04
1702	4:33	5:00	5:15	5:32
1704	5:05	5:32	5:47	6:04
1706	5:35	6:02	6:17	6:34
Amtrak 516*	6:50	7:17	:	7:42

# **Everett to Seattle (Southbound)**

Train No	Everett Station	Mukilteo Station	Edmonds Station	Seattle
1701	5:45 AM	5:56	6:11	6:44
1703	6:15	6:26	6:41	7:14
1705	6:45	6:56	7:11	7:44
1707	7:15	7:26	7:41	8:14
Amtrak 513*	10:02	:	10:27	11:05
Amtrak 517*	8:59 PM	:	9:24	10:10

#### 2. APPENDIX 2 - BNSF CONTROL CENTER EMPLOYEE TRAINING QUALIFICATION

# BNSF Employee Training and Qualification - .101(a) (2) (ii)

# **BNSF Control Center Personnel**

As a minimum, control center personnel are given physical characteristics training in the form of trip rides, video displays, line chart profiles or a combination of the aforementioned forms every two years. This physical characteristics training includes familiarization with and use of the Operations Profile, Timetables and other relevant documents. The physical characteristics will include grade crossing identification in the event trains must be stopped on a given line segment.

#### A. Dispatch Territory Familiarization

- 1. Video tapes and/or CDs of each district are available.
  - a. Copies of the tape will be given to each trainer for use in their district.
- 2. Distribute operations profile of specific districts & territory.
  - Discuss physical characteristics of areas along territory that call for special attention. (Overhead wires, bridges, elevated ROW, chemicals, fuel tanks, etc.)
- New employees must be qualified on their territory and its various characteristics prior to working as a train dispatcher.

#### B. Protocols Governing Internal Communications

Protocols governing internal communications between appropriate Control/Dispatch Center personnel whenever an imminent potential emergency situation exists.

- Control/Dispatcher must immediately advise his/her immediate supervisor, (Chief Dispatcher) should they become aware of any incident or situation that may affect the health or safety of any passenger or employee.
- Control/Dispatcher must immediately advise his/her immediate supervisor, (Chief Dispatcher) should they become aware of any incident or situation that may adversely affect the safe operations of that portion of the railroad system that he/she has a direct control.

### 3. APPENDIX 3 - TRAINING FOR EMERGENCY RESPONDERS



## Passenger Train Emergency Preparedness

#### **BNSF** - Training Outline

#### Classroom Instruction - Local Police Department

- o Rail Safety Awareness
  - Officers Roll Call Video
- o Communication with the BNSF 1.800 number Awareness
  - BNSF Incident Command Structure internal
  - BNSF Incident Command Structure external
- o Physics of Equipment and Train Operations
  - Freight Train Derailment Video (optional)
  - Split Screen Locomotive / Control Cab (optional)
- o Rail equipment Awareness
  - Ingress Doors / Window
    - · Photo luminescent Decals
    - Pictographs
    - · Function / operation of appliance
  - Egress Doors / Window
    - · Photo luminescent Decals
    - Pictographs
    - · Function / operation of appliance
- Role and Responsibilities
  - Conductor
  - Engineer
  - Railway Incident Commander
- o Law Enforcement Response
  - o Arrival at incident
    - Confirmation of stoppage of rail traffic
    - Site Safety
    - Personal safety
    - Types of incidents
    - Collision / Derailment
    - Collision / Derailment Vehicle
    - Collision Trespasser



- o Security Incident
  - Crime scene
  - Passenger staging area
  - Location of device (if applicable)
- o Tactical Considerations
  - Tubular Assault
    - o Noise
    - o Movement through equipment
    - o Sightlines
    - o Compartments / confined space
  - · Coordination with BNSF Police
  - Roles & Responsibilities
    - o Investigation of crime scene
  - · Report / information assimilation

Durations: 2.0 hours

### Hands-On Training

- Participation in Field Instruction
  - o Communication with the BNSF 1.800 number Operational (simulated)
  - o Rail equipment
    - Passenger coach
      - exterior
      - interior
    - Emergency tools
    - Emergency window
  - o Locomotive
    - Blind spot
    - Equipment familiarization
      - control console
      - engine room

Durations: 1.5 hours

END

#### 4. APPENDIX 4 - CHALLENGE QUESTIONS FOR OPERATIONAL EFFICIENCY TESTING

#### Test A

**Description/Purpose:** This test checks on-board employees for compliance with responsibilities regarding on-board emergency communications and evacuation procedures.

**Procedure:** This test may be conducted as a challenge question by supervisor. Supervisor must ask the on-board employee to explain the preferred method of evacuation.

**Failure:** The test is a failure if the on-board employee cannot explain the preferred method of evacuation.

#### Test B

**Description/Purpose:** This test checks on-board employees for compliance with responsibilities regarding on-board emergency communications and evacuation procedures for passengers with disabilities.

**Procedure:** This test may be conducted as a challenge question by supervisor. Supervisor must ask the on-board employee what his/her responsibilities are regarding the evacuation of passengers with disabilities.

**Failure:** The test is a failure if the on-board employee does not explain that he/she should first notify the train dispatcher about any passengers with disabilities aboard the train and next notify emergency responders of their location(s) prior to evacuation.

#### Test C

**Description/Purpose:** This test checks on-board employees for compliance with responsibilities regarding emergency communications and evacuation procedures for special circumstances.

**Procedure:** This test may be conducted as a challenge question by supervisor. Supervisor must ask the on-board employee to identify a special circumstance (e.g., open deck bridge) along the route and explain the evacuation procedures for that circumstance.

**Failure:** The test is a failure if the on-board employee fails to explain a specific special circumstance or evacuation procedure for the said location (e.g., open deck bridge has walkway and handhold on south side...passengers are to disembark on south side).

#### Test D

**Description/Purpose:** This test checks control center employees for compliance with emergency communications for special circumstances.

**Procedure:** This test may be conducted as a challenge question by supervisor. Supervisor must ask the control center employee to identify a specific special circumstance (e.g., tunnel) within the corridor and convert the railroad location (e.g., milepost) to a civilian location (e.g., nearest access road).

**Failure:** The test is a failure if the control center employee fails to identify a special circumstance, locate the named special circumstance using resources (e.g., track chart, DeLorme Map, etc...), or convert the railroad location to a civilian location.

## 5. APPENDIX 5 - AFTER ACTION REPORT and DEBRIEF ANALYSIS FORM

The After Action Report to be completed after the Emergency Exercise will cover items such as: the goal, the scenario, a summary of the post-drill critique, including observations regarding notifications and communications, media communications and the unified command structure and flow and a chronology of events. Also covered will be the Mass Casualty (MCI) response, Police response, passenger comments as well as specifically the performance on evacuating passengers with disabilities. A score sheet will measure performance as with a sample that follows:

**Post Drill Summary** 

	Scoring Criteria	Score 1-10
		(1=low, 10 high)
1.	Were internal notifications made?	
2.	Did Transition to Unified Command occur smoothly?	
3.	Did Responders check that rail traffic had stopped? Is Safety observed?	
4.	Patient evacuation/triage occurs smoothly? Did evacuation from window take place? How were ADA passengers handled?	
5.	Was the IC identifiable? Did supporting agency representatives (BNSF, Amtrak, Sound Transit) report to the IC? Did Transfer of Command occur smoothly? Was there an orderly exchange of information whenever Transfer of Command was made?	
6.	Was communication effective?	
7.	Preserve evidence: Request for video? Electronic and other data? Information obtained from witnesses, on scene information, perishable evidence?	
8.	Spills: Environmental Response? Biohazard response?	
9.	If the media arrives, what action is necessary? If a statement was given, was it appropriate?	
10.	Were actions taken to separate passengers/victims from general public? Transportation of passengers at stations coordinated?	

Total: _	
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Detailed questions that support the above may include:

For On-board personnel -

- Did on-board personnel give clear and proper directions to those persons evacuating from the passenger cars?
- Did personnel appoint other passengers to help with evacuation? Was there attention to ADA passenger needs?
- Did personnel search the cars for any remaining persons before getting off?

For Emergency Responders -

- How many minutes did it require evacuating all persons from train?
- How quickly and effectively did emergency responders respond after notification?
- Principal weaknesses observed?
- Principal strengths observed?

For the Rail Traffic Controller -

- How much time elapsed between the occurrence of the situation or drill and notification of the emergency responders involved?
- Did the rail traffic controller initiate promptly the required notification

## 6. APPENDIX 6 - SOUNDER LINEAR REFERENCING SYSTEM

- Everett to Seattle
- Seattle to Tacoma
- Tacoma to Lakewood

7.	APPENDIX 7 - BNSF OPNS TESTING GUIDE – PASSENGER OPNS SUPPLEMENT

O. APPENDIA O FEMERGENCI RESPUNDERS MANUA	8.	APPENDIX 8	<b>EMERGENCY</b>	<b>RESPONDERS MANUAL</b>
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